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ABSTRACT

This 20-page issue explores the opportunity for creating 21st century learning environments that not only focus on different kinds of educational architecture but also emphasize how time is used, teacher-student relationships, collaboration, the benefits of real-world projects, and community involvement. In Minnesota, high school juniors and seniors confer in office-like workstations and use local ponds and forests as their classroom in 3-hour class periods. In an attempt to eliminate anonymity, a large Wisconsin high school is broken down into friendlier, smaller units. Technology is ubiquitous at a California high school. Schools in New York City and Phoenix illustrate the power of involving the community and offering services. Featured schools and programs include the School of Environmental Studies in Apple Valley, Minnesota; San Pasqual Elementary School in Escondido, California; Capitol Elementary School in Phoenix, Arizona; James Madison Memorial High School in Madison, Wisconsin; and IS 218 in New York, New York. (SM)

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(Re) Designing Learning Environments

Edutopia
Fall, 2002

The George Lucas Educational Foundation

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edutopia

(RE)DESIGNING LEARNING ENVIRONMENTS

THE GEORGE LUCAS EDUCATIONAL FOUNDATION

TELLING THE STORIES OF EDUCATION

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PHOTO COURTESY OF GLEF VIDEO SERIES

THE CLASSROOM DOESN'T STOP AT THE DOORS OF THE SCHOOL OF ENVIRONMENTAL STUDIES. HERE, JUNIORS IDENTIFY PLANTS NEAR THE SCHOOL POND.

IT'S ALL HAPPENING AT THE ZOO SCHOOL

by Diane Curtis

When Mark LaCroix and his classmates at Minnesota's School of Environmental Studies (SES) discovered patches of buckthorn crowding out native species at a local park, they didn't just write up their findings as a science report to be read by the teacher and then handed back. They compiled data in a form familiar to government agencies and submitted a technical report to local officials, who used the information to direct park gardeners to eradicate the invasive plant.

"Typically in a school, you build boxes and then you decide what to teach in the boxes. We had the opportunity to design the program first."

—Dan Bodette, Principal
Minnesota's School of Environmental Studies
www.isd196.k12.mn.us/Schools/ses

At SES, learning is about becoming an expert and solving real problems — doing in-depth, interdisciplinary research using innovative technology that results in practical applications. Every aspect of the school, from its curriculum and close student-teacher relationships to the architecture of the building, supports the school's get-out-there-and-do-it approach to learning.

SES opened in 1995 in the Minneapolis-St. Paul suburb of Apple Valley as a public, 400-student, 11th- and 12th-grade "high school of choice." Also known as the "Zoo School" because of its active partnership with the Minnesota Zoo and its 12-acre site on zoo property, the school embraces project-based learning with an environmental theme. A number of students work with zookeepers and scientific staff in studying animal behavior, keeping animals active and challenged, and promoting public transit to the zoo.

"I feel like I'm not learning in a box of fluorescent lights like I was in my first years in high school," says student Kelly Carlin. "I'm learning in a classroom, and I'm learning outside by a pond. I'm learning in a local park. I'm learning at the zoo, working with people who are doing stuff in the field. ... We do a lot of stuff that has a significant impact on the community."

Continued on page 8

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ARCHITECTURE FOR CREATIVITY

by George Lucas

For many years, I've been interested in how the architecture of buildings and landscapes can encourage the creative process. In building Skywalker Ranch, I worked closely with architects to design places where people could do their best work. The buildings resemble comfortable homes, with natural light, oak furniture, and stone fireplaces. There are paths to walk among the trees and wildlife in a place of great natural beauty. Groups can meet in communal areas, enjoy a meal together, and share ideas. Our technical rooms are constantly being remodeled for state-of-the-art digital technologies for film production, editing, and presentation.

PHOTO COURTESY OF GLEF

George Lucas and Milton Chen reviewing *Edutopia: Success Stories for Learning in the Digital Age*, GLEF's new book and CD.

Since teaching and learning are also creative activities, schools should be designed to foster the collaboration, reflection, and imagination of students and teachers. Classrooms should accommodate group projects, as well as individual workspaces. They should provide technology tools for students to express their knowledge in multimedia forms, and to communicate with each other and the outside world. By their design, classrooms reflect the regard we have for students and teachers. If we want them to do their best work, we should create "learning spaces" that enable them to do so. □

George Lucas, chairman of the GLEF board of directors, designed Skywalker Ranch and Big Rock Ranch, the new headquarters of Lucasfilm.

THE 'BUILT ENVIRONMENT'
AND THE LEARNING ENVIRONMENT

by Milton Chen

Buildings communicate. Spaces teach. Desks bolted to the floor indicate rules for student behavior. Seats facing a lectern dictate the focus of attention.

This relationship — between the buildings our students, teachers, and administrators work in, and the quality of the work they do — should be better understood. The new wave of school construction in the United States offers critical opportunities for communities to rethink every aspect of education.

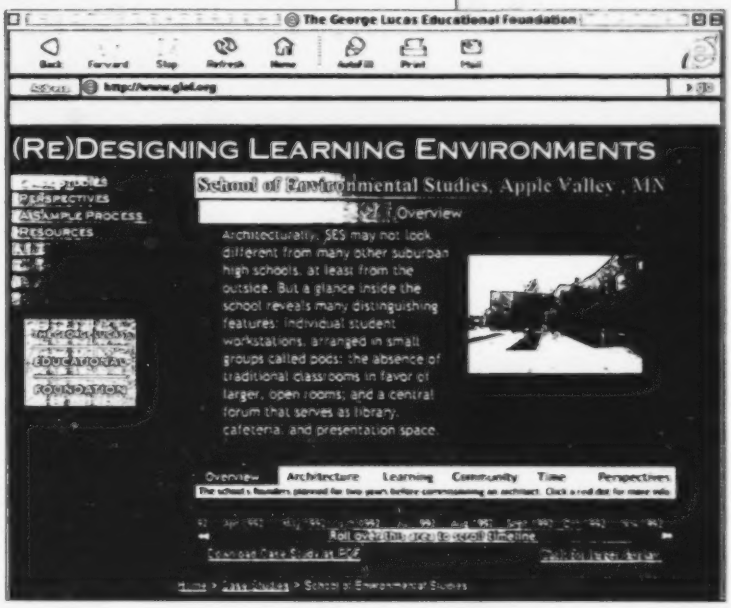
The articles in this issue of *Edutopia* address many facets of this relationship between the built environment and the learning environment. Some schools are designing entirely new structures, creating flexible spaces for group and individual learning and modeling cost-effective, environmentally friendly practices. Other schools are finding innovative ways to redesign existing facilities, often with the goal of reducing the impersonal nature of large schools and creating smaller social units and closer bonds. Technology is also transforming thinking about school facilities. Wireless networks, for instance, are enabling a new style of portable computing and "anytime, anywhere access" to the world's learning resources.

Still other schools are recognizing that their facilities could be better utilized throughout the year. Instead of closing nights, weekends, and summers, they are adding creative student programs that supplement school instruction. Parents and other community members are invited to participate as well, strengthening the ties between schools and their communities. When adults designing school facilities "think outside the box" of the traditional school, perhaps the students they serve will, too. □

Milton Chen, Ph.D., is GLEF's executive director and jury chair for NHK's 2002 Japan Prize honoring the best educational TV programming and Web sites.

BACK TO SCHOOL WITH A NEW VISION:

(RE)DESIGNING LEARNING ENVIRONMENTS


The George Lucas Educational Foundation
(RE)DESIGNING LEARNING ENVIRONMENTS
School of Environmental Studies, Apple Valley, MN
Overview
Architecturally, SES may not look different from many other suburban high schools, at least from the outside. But a glance inside the school reveals many distinguishing features: individual student workstations, arranged in small groups called pods; the absence of traditional classrooms in favor of larger, open rooms; and a central forum that serves as library, cafeteria, and presentation space.
Overview
Architecture
Learning
Community
Time
Perspectives

Over the next five years, the United States will spend almost $100 billion to build and renovate public schools.

The Opportunities: To rethink what a Digital Age school should look like. To design flexible learning environments that inspire and motivate students and teachers. To connect schools to their communities and the larger world, physically and virtually.

The Challenges: To resist rebuilding schools like the ones we went to — long hallways with closed-door classrooms. To throw out the idea that "one size fits all." To think "outside the school box."

GLEF presents new Web features to tell the stories of schools that have seized this opportunity and answered this challenge.

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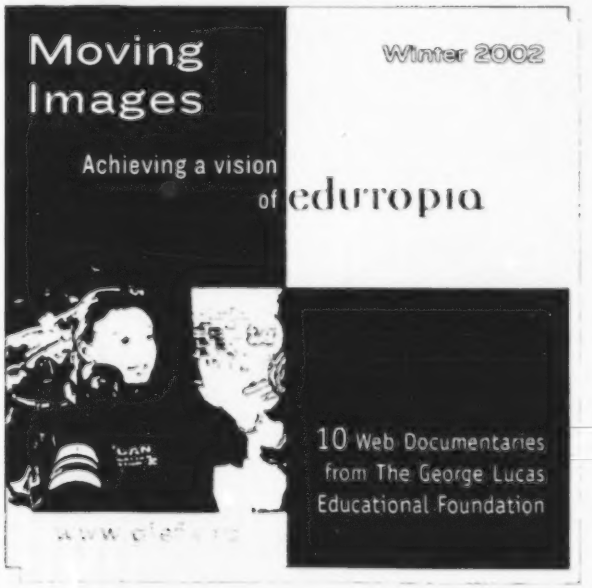
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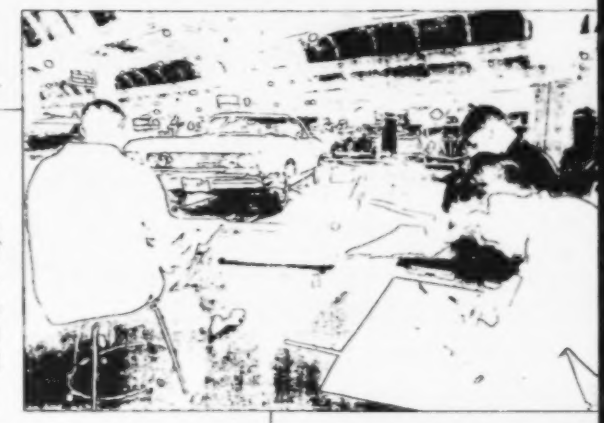
Community-Based School Planning:

if not now, when?

by Steven Bingler



Throughout the country, elementary and high school districts are spending unprecedented amounts of money renovating existing school facilities and building new ones. In 2001 alone, roughly $27 billion worth of K-12 construction projects were approved and funded — a trend that is likely to continue for several years out.

Like any period of rapid change, this construction boom presents both a challenge and an opportunity for everyone who cares about the quality of our schools. The challenge: to design schools that foster community, encourage inquiry, and are grounded in a commitment to lifelong learning. The opportunity: to engage an entire community in the formidable task of turning this grand vision into a reality.

Increasingly, schools and communities are rising to this challenge, exploring a new model of planning and decision-making. They're assembling committees that are truly representative, including parents, teachers, and students, as well as business and community members. And they're empowering this group to review data, investigate options, and make firm recommendations to school boards about everything from curriculum to school size to the design of the facility itself.

Using a data-driven methodology, this public engagement model is growing in popularity as an effective tool for authentic and autonomous large-group decision-making. In this model, elected officials receive clear input and direction about their constituents' wants and needs. As important, they obtain community ownership and buy-in.

Although the engagement model is sometimes construed as being more time-consuming than traditional processes, the outcomes are well worth the added effort. Through the open dialogue that is integral to this process, issues are more thoroughly reviewed and resolved. Protracted infighting, conflict, and debate are often avoided. Another benefit from broad-based community engagement is that recommendations are often more systemic, incorporating a broad range of the community's physical, cultural, social, economic, organizational, and educational assets into more elegant, cohesive, and efficient solutions.

Making the Case

Following are three case studies that represent the public engagement model of school planning and design. Although the communities and the schools vary considerably, all share a common commitment to going beyond the standard factory model school to build learning environments that are more inclusive, extensive, and integrated into the community as a whole.

The MET: Providence, Rhode Island
An Inclusive Learning Environment

The Metropolitan Regional Career and Technical Center (The MET) is a public high school serving South Providence's inner-city youth. The school emphasizes personalized learning, authentic work, a strong sense of school community, and the involvement of families, the local community, and area businesses.

The learning environment, which was developed through an extensive one-year master plan and an additional four-year community engagement design process, is comprised of six small schools of 100 students each. One of the schools is located in an existing downtown office building. A second is part of a newly constructed neighborhood-oriented facility.

The remaining four small schools are being built on a new single site in the inner-city neighborhood of South Providence. The suite, scheduled to open in the fall of 2002, will include a central "commons" that will serve as a neighborhood town square, as well as fitness and performing arts centers that will be shared with neighborhood residents.

The MET also includes mentoring and internship sites located throughout the city in restaurants, hospitals, and other locations, all of which are part of the total "MET" learning environment. Every Tuesday and Thursday, in response to the MET's innovative "Learning Through Interests" curriculum, the students meet with their off-site mentors and a collaborative team of parents, educators, and community advisers to devise an individual learning plan.

The Candy Connection: Littleton, New Hampshire An Extended Learning Environment

Learning academies in Littleton, New Hampshire, link Littleton High School's innovative high school curriculum to the community's vital Main Street redevelopment program. Developed as part of a one-year community engagement process, the academies were implemented within four months of presentation of the master plan.

GES COURTESY OF CONCORDIA LLP

The business academy, known as "Chutter's Candy Connection," is located in the basement of Chutter's General Store on Main Street, which was listed recently in the Guinness Book of World Records as having the longest candy counter in the world. The program now includes four groups of students that manage the e-business for the store. Students design Chutter's Web page, advertise, market to targeted customers overseas, and negotiate all shipping contracts. A second academy is located in a Main Street bank and incorporates student use of a new spatial information technology program, developed for use with the town's new Geographic Information System.

Communities as diverse as Dearborn, Michigan, and Littleton, New Hampshire, are adopting a community-based model of new school planning. The results of this process are as different as the cities themselves: from a school located on the campus of the Henry Ford Museum to small student centered schools and academies located throughout a community.

Both of these Main Street Academies are a direct product of student engagement, where requests to "make the learning real" were honored and implemented by the community as a whole. An additional benefit to the school district was the creation of two new classrooms at a cost of only $3,500, creating a net value of more than $200,000 in the classrooms vacated at the high school site, which are now available to relieve overcrowding. Additional Main Street Academy projects are currently in the planning stages.

The Henry Ford Academy: Dearborn, Michigan An Integrated Learning Environment

The Henry Ford Academy in Dearborn, Michigan, is a public charter high school with 400 students. The learning environment was developed one grade level at a time over four years, integrating an innovative public educational curriculum with the extensive resources of the existing Henry Ford Museum and Greenfield Village.

The academy demonstrates how integration of resources can produce more economical and more effective learning environments. The project was built for 20 percent of the cost of a comparable stand-alone Michigan high school. Student retention is at 98 percent and test scores are four times higher than those of other Detroit public schools.

Built by Henry Ford in honor of his mentor, Thomas Edison, the Henry Ford Museum includes over 1 million museum artifacts located in one 12-acre building. The Greenfield Village complex adds an additional 80-acre outdoor learning environment with more than 75 significant buildings that represent some of the nation's most noted innovators and their creations. The design provides for the distribution of formal learning activities with access to the whole 80-acre campus.

The academy was developed as a collaborative venture that includes the Henry Ford Museum, the Ford Motor Company, and the Wayne County Regional Educational Service Agency. Facilities for each grade level were designed in collaboration with more than 100 students, parents, educators, curators, and museum and school administrators. The result is a facility that serves as both the physical and metaphorical "home base" from which a broad range of student excursions ensue, both within the museum grounds as well as externally through internships with participating adult mentors.

An Opportunity

The opportunity to design innovative, forward-looking learning is limited only by our collective imaginations. Given what we know about the benefits of parent and community engagement and about the value of more integrated, project-based and real-world learning experiences, there has never been a better time to develop more inclusive, extended, and integrated environments for living and learning.

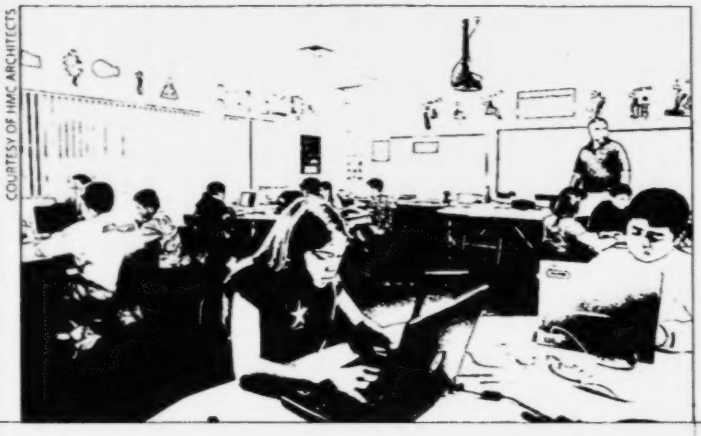
Developing and maintaining these models will require a new kind of collaborative enterprise that involves a wide range of talents and interests. Parents and students, educators and city planners, business and community leaders all have a role to play in designing these new, integrated learning environments. As the communities of Dearborn, Littleton, and South Providence have discovered, the outcomes of these collaborative ventures can result in a vision of teaching and learning that extends well beyond the walls of a traditional school to include an entire community and all of its rich and diverse resources. □

Steven Bingler is the founder of Concordia LLC, a planning and architectural design firm based in New Orleans and Pasadena. He is the author of *Schools as Centers of Community: A Citizen's Guide for Planning and Design*, published by the United States Department of Education.

a high-tech school with a down-home feel

San Pasqual Elementary School in Escondido, California, is reminiscent of an early 1900s farming community, complete with a big red barn, silo, town hall, and courtyard. But inside this old-fashioned-looking complex, sixth-grade students are combining digital photography and sound clips from Web sites on Egyptian deities and displaying their presentations on interactive digital white boards.

by Paula Monsef, GLEF Staff Writer



COURTESY OF HMC ARCHITECTS

COURTESY OF HMC ARCHITECTS

PHOTO BY JEFFREY FELIX

Upper left: Sixth graders research historical details for interactive presentations via laptop computers with teacher/Technology Coordinator Ken Beeunas. *Lower left:* The library's fireplace hearth makes a cozy setting for reading. *Below:* Behind the barn doors and underlying the weathered wood exterior hums high-speed internet access connecting students with the world.

This state-of-the-art K-8 school is the brainchild of administrators, teachers, and parents, who in 1997 found themselves in desperate need of a larger facility for their one-school district. Today, the new "barn" houses a gymnasium and performing arts center. Inside the "silo" is a library, complete with a cushion-filled reading tower. The "town hall" is, indeed, a meeting hall. And from Monday morning flag assemblies in the rustic courtyard, students head to classrooms that are one click away from the rest of the world via the Internet.

A farming community planted in orange and avocado groves and corn fields, San Pasqual is 30 miles northeast of San Diego, California. Although some families work in agriculture, most parents commute back and forth to San Diego. Roughly 30 percent of the school's 500 students are Hispanic; 65 percent are white. English language learners comprise 16 percent of the student population. Nineteen percent of the students qualify for free or reduced-priced lunches.

In recent years, San Pasqual has undergone tremendous growth. New housing developments have lured families away from the city and have more than doubled the school's student population. In 1997, with the school filled well beyond capacity, the district needed a new facility — and needed it fast.

Jeffrey Felix, San Pasqual Unified School District (SPUSD) superintendent and principal, led a committee of 24 parents and teachers through the process of planning the new school. HMC Architects from San Diego helped identify and acquire a site, secure funding sources, design the school with plenty of input from the community, and oversee construction. Building plans incorporated the most robust technologies available — both to support teaching and learning and to maximize energy efficiency.

And in 2001, the new barn doors swung open to students.

Easy Access to High-Tech Tools

Technology is everywhere. Every K-5 classroom has at least two computers. Most students in grades 6-8 have daily access to a notebook computer. Many students own a notebook and bring it to school. The school also provides financial assistance for students who would otherwise be unable to purchase one.

"When there is a need," says Ken Beeunas, the school's technology coordinator and sixth-grade teacher, "there is a computer available." All classrooms are capable of handling many more computers than are currently in place.

San Pasqual sixth graders have used laptops for several years. Beeunas set up the program based on the "Anytime, Anywhere" model from Australia that aims to get technology into the hands of kids "24/7" and thus increase their familiarity and improve learning. High-speed wireless computers will be added in autumn 2002, enabling the sixth graders to work from anywhere within 150 feet of a base station.

Every teacher has his or her own classroom computer for research, presentations, communications, and record keeping. Professional development is ongoing and includes exploring new ways to integrate technology into all areas of study. "We want to make our use of technology as seamless as possible," says Beeunas, who helps teachers enhance their curriculum with technology.

Money-Saving Controls

Besides being wired for use by the students and

staff, the school was built from the ground up for efficiency in operation. The temperature in each room is monitored and adjusted automatically by a central computer, and it can also be controlled locally from any computer in the school to accommodate personal preferences. When air conditioning is not needed, fans circulate air to prevent stuffiness.

Lights are on automatic timers but can be switched on and off from within each room or via the computer network. Infrared heat-sensing motion detectors in each room also activate lights and are part of the building's security system. Building orientations make use of prevailing winds and mitigate effects of strong, direct sunlight. Deep roof overhangs provide shade. Such well-thought-out features combined with cost-efficient heating, air conditioning, and lighting systems earned the school a $25,000 rebate from the local power supplier and have saved money on monthly energy bills.

A Multi-Use Library

A focal point of the new school is its library. The school's media specialist, Teri MacDonald, says the old 700-volume library "was shifted around from classroom to classroom as the school kept growing, ending up in a portable building with barely enough room to get between the stacks." Thanks to a state grant the collection is approaching 11,000 volumes and is easily housed in the new space.

The new library's accessible and comfortable facilities support the school's literacy goals and enable students to conduct research through various technologies. Every book in the collection is labeled by reading level to help students select books that match their abilities.

In addition, students needing extra practice in English can access software literacy programs on one of the 15 computers there. Parents, too, can use the software during evening English classes launched just this year. "At first, it was very intimidating for them [the parents] to come into the library, let alone work on the computers," MacDonald says. "By the end of the school year, the library was buzzing with learning — small groups working with a teacher or all of the computer stations busy. The parents were very comfortable and happy with their success. We had parallel books [the same book in English and Spanish] for check-out to read at home with their children."

History Comes Alive

Over the past 15 years, many SPUSD eighth graders have journeyed to historic United States monuments with teachers Bryce Bacher and Colby Strongberg after studying related topics in class. In the early years, Bacher says, "Research meant opening an encyclopedia, writing letters, requesting pamphlets." These days, however, students research the monuments on the Internet and create presentations to share with their classmates.

A greater sense of excitement and expectation is ignited through connecting with primary and secondary sources on relevant Web sites. Students interact directly with people involved with events they are studying and places they are planning to visit. Whether they actually make the trip or not, students still bridge history through their virtual experiences from the comfortable and historic environment of the "Little School in the Valley." □

Community Builders

When K-12 students finish their weeklong Architecture and Children class with architect and college professor Anne Taylor, they understand the vocabulary of architecture, and have learned organizing principles of design and the architectural conventions of plan review and elevation drawing. They have also built three-dimensional models. All of this helps them think visually, collaborate with peers, and present their work to colleagues. If students are later asked to design a school, the challenge engages them, lets them apply what they have learned, and provides practice for participation in discussions with adults about the design and planning of classrooms, schools, and other buildings in their own communities. □

IMAGES COURTESY OF ANNE TAYLOR

IMAGES COURTESY OF BRIAN LUCERO, UNIVERSITY OF NEW MEXICO PUBLIC INFORMATION

Summer Design Academy, Institute for Environmental Education, Dr. Anne Taylor, Director,
School of Architecture and Planning, University of New Mexico, Albuquerque, New Mexico 87131

continued from page 1

Like all SES students, Carlin came to SES, which admits half of its students based on lottery and the other half based on an essay, after attending his neighborhood "home high school" for his freshman and sophomore years. The school reflects the district's ethnic makeup, which is about 92 percent white.

"We spent a great deal of time figuring out what was the best way students could be educated, and we came to some basic ideas," explains SES teacher Tom Goodwin, one of the

IT'S ALL HAPPENING AT THE ZOO SCHOOL

creators of the school. "One of them was students should be workers, and teachers should take less of a central role. Another was that students should be able to move around and that there should be some sort of center of the school. ... And everyone's group, everyone's house, would more or less face that central location."

Academic Program First, Design Second

The construction of SES was an all-too-rare case of fitting the building to the academic program, says Principal Dan Bodette. "Once we fleshed out our entire two-year program (which took two years), then we went to the architect and said, 'Architect, please design a building that will meet our needs, our expectations for how kids are going to learn best.'"

Classroom spaces upstairs in the two-story building open to a wide hall that looks down on the community area on the first floor of the building.

The forum, located on the first floor, is used as a cafeteria, auditorium, and display center. Large windows in the forum look out on picturesque Birch Pond, which has an outdoor classroom area (below) as well as a pier. Most inside areas allow for easy reconfiguration and flexibility in arranging tables and chairs to meet the needs of the moment.

ALL IMAGES COURTESY OF THE U.S. DEPT. OF EDUCATION AND HGA INC.

The building that architect Bruce Jilk ultimately came up with in consultation with educators, parents, and community members focuses on giving the school a family feeling. Students and teachers are grouped into "houses" — 110 or so students and three or four thematic studies teachers who are teamed up for three hours every day. When the entire house meets, tables and chairs may be arranged in a semicircle or rows. If community members are coming to watch student presentations, the configuration changes, as it does when small groups work together on projects, or when the area needs to be cleared of furniture to create a large, open space.

The building speaks to the collaborative relationships among students and staff and to the idea that students are supported to go as far with their learning as they are capable. Each house includes a shared office for its teachers, and the door is always open. Students form relationships with the other teachers, students, and staff through electives, projects, Socratic seminars, and general mingling in the community areas.

Carlin notes that he knew only 5 percent of the teachers at his home high school, which enrolled 2,200 students, and so only 5 percent of the teachers trusted him. The other 95 percent did not, as evidenced by locked doors and the lack of access to teachers and academic areas after school hours.

Comfort Aids Achievement

Student Lauren Dees says there's definitely a relationship between academic achievement and the welcoming environment, which includes trust, responsibility, and being judged on ideas, not appearance. There are no hall passes at SES, and students are encouraged to go where they need to go to do research, confer with other students, use a computer in their house or down the hall, or work on video, audio, and PowerPoint® projects in the media center. They may stay at the school until the last teacher leaves for the day.

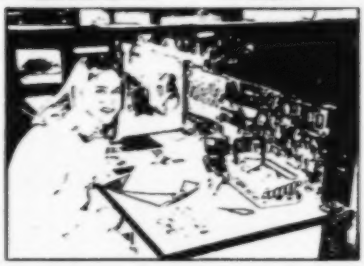
Cubicles, says student Chris Snyder, "provide a sense of identity for everybody. They present your image nonverbally."

The friendly, no-cliques-tolerated school atmosphere "just meant that I was a little more open to what I was learning," says Dees. "I was a little more interested."

The main "building block" of SES, says Jilk, is the student workstation. The workstations look like typical office cubicles, with storage and books and other study accessories. But the most interesting workstation artifacts are the ones that tell about the person whose workstation it is — snapshots of a mountain climbing trip, magazine cutouts of small airplanes, photos of teen heartthrobs like Josh Hartnett and Angelina Jolie, and stuffed monkeys and lizards.

While the building block of SES is the workstation, the building block of more traditional schools is the boxy classroom with desks arranged in rows facing the teacher, says Jilk. "If you put 30 kids and a teacher in a 900-square-foot room, guess what?" he asks. "The teacher is going to take control and start lecturing. So we needed to break that kind of mold or model for this school."

Pods Rule

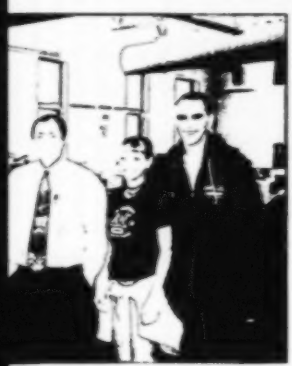


Members of 10-student "pods" often do individual research and then trade information. Greater understanding comes with explaining something to another person, says teacher Tom Goodwin. Below, Principal Dan Bodette joins two students at their pod.

Students are grouped into "pods" of about 10, and about 10 pods form a house. Pod members make their own rules ("No hissy fits. Trust. Respect everyone's individuality. Don't worry, be happy," exhorts one pod poster) and often do academic work together. It's common for each member of a pod to be assigned to read an article or chapter and then explain that article or chapter to the rest of the group. Pods may also have homework nights or regular lunch potlucks that further the feeling of family and the idea of educational collaboration.

Jilk notes that the school also is used as an environmental textbook. Students learn that the building materials, such as a composite of concrete and wood, are renewable. The exposure of steel beams is designed to demonstrate how architects work with gravity, and the exposed duct work shows how air moves throughout the building. Recycling bins are ubiquitous, and there are no paper towels in the restrooms, only air driers. Much of the art is made of recycled materials.

Besides thematic studies, elective courses are offered in math, science, technology, photography, and world languages. Advanced Placement classes also are offered. Students may return to their home high schools for extracurricular activities or classes that might not be offered at SES.



For 10 days out of each trimester, students take part in an intensive study of one subject or travel to such places as Costa Rica, Alaska, Scotland, Mexico, or the Boundary Waters in Minnesota to study and perform community service related to the environment.

Many students attend SES because of the environmental focus, but Bodette has heard a wide variety of reasons for students' attachment to the school — from being given the opportunity to learn a great deal of information in depth, to working together, to being known by other students and teachers, to being able to present research to outside audiences. "They get excited about that," Bodette says.

"A lot of kids are changed by coming here," adds student LaCroix. Students who may not have been particularly interested in school find that learning can be fascinating and fun. "You'll begin to love learning, and it'll just all come to you," LaCroix says.

At the same time, kids who already possess a stellar academic record will find that they don't know it all. "They'll come here, and they'll be humbled a little bit," LaCroix says. "They'll find they can learn new things." □

rebuilding a school

revitalizing community

by Roberta Furger,
GLEF Staff Writer

A large circular courtyard is a favorite gathering space for members of the Capitol Elementary School community.

New Life for a 'Dying' Community

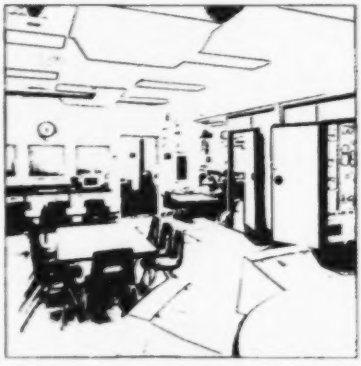
When Cora Garrido arrived at Capitol in 1990, the newly appointed principal found a school teetering on the brink of closure. The K-6 facility consisted of 10 portable units, brought in as a temporary fix after the original structure was condemned and torn down. "The district viewed us as a dying community," she says bluntly. "It was only a matter of time before the school was closed."

Located in one of the poorest neighborhoods in Phoenix, Capitol has more than its share of challenges. It's a community where the only Christmas present a child gets is the one from the Kiwanis, where a sweater in winter is a luxury not all can afford, and where every student qualifies for free breakfasts and lunches. Roughly one-third of the student population turns over every year. Well over half of the school's largely Hispanic population are recent immigrants from Mexico who speak little or no English.

Years of working in dilapidated facilities with insufficient resources had left many teachers feeling frustrated, burned out, and disconnected from their peers, their students, and the community. Parents were equally disaffected. Many didn't even feel comfortable stepping onto the school grounds. They'd walk their children to the edge of the school property and then watch through the chain-link fence until the students were safely indoors.

Maribel Quintanar has never studied architecture and she isn't an expert in school planning and design. But the high school sophomore from the Capitol area of downtown Phoenix could write volumes about the impact a school facility has on the way students learn and think — about school, about their community, and about themselves.

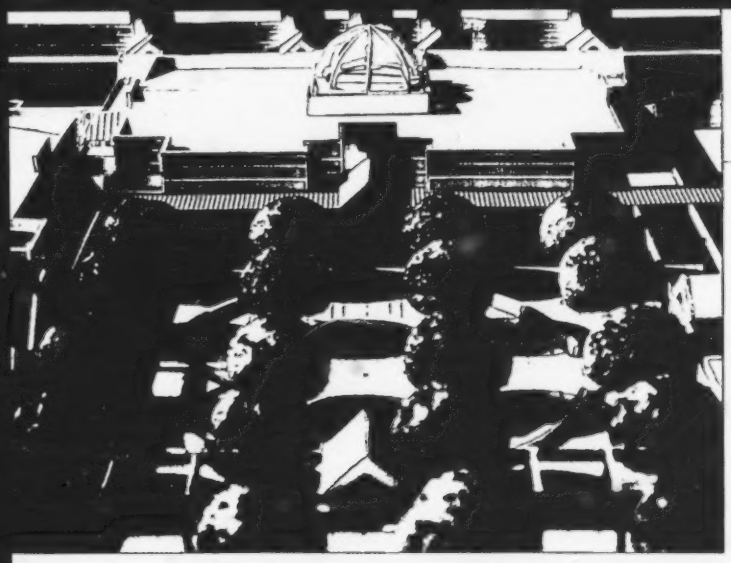
Maribel spent her first four years of elementary school in small portable classrooms that had no windows, no insulation, and no air conditioning. The cramped quarters were like little cells — dark and dreary spaces that were often either too hot or too cold for students and teachers to work comfortably. The playground was small and the equipment was old. Many of the water fountains didn't work and those that did ran only lukewarm water that did little to quench a student's thirst on a hot Arizona afternoon.



"You'd look around and think, 'They don't even take care of this and that,'" recalls the soft-spoken 15-year-old. "'They don't care about me.'"

And then, towards the end of Maribel's third-grade year, the unbelievable happened. The students, staff, and families at Capitol Elementary School received word that a new facility would be built. "It was like, 'Whoa! Maybe they do care about us,'" says Maribel. "It inspired me. It made me happy. I thought, 'Now I really do have to study and work hard.'"

Capitol's Media Center affords students and teachers easy access to Internet-accessible computers and a rich collection of reading and reference materials.



Capitol Elementary School's design is a tribute to the state capitol building, which is located just a short distance away.

Although Garrido acknowledges that the facility was "unacceptable," she was determined "to focus on the children, not on the facility."

Slowly — and sometimes painfully — Garrido began to guide the faculty and the larger Capitol community through a series of structural and pedagogical changes. She met with parents and business people to understand their concerns and elicit greater participation in the school. She organized workshops for teachers on everything from project-based learning to literacy instruction for English language learners to nurturing parent involvement.

Some teachers left the school; others were reinvigorated by the changes. They began planning lessons together and exploring ways to incorporate projects into their curriculum. A community worker became the bridge between parents and teachers, helping both groups connect. Daily attendance went from among the worst to among the best in the district as Garrido and her staff worked with families to emphasize the importance of being in school seven hours a day, five days a week.

In short, the hard work was paying off. Enrollment increased steadily and the temporary facility was full to overflowing. The district put forth a $5.2 million bond measure to build a new school, which the local electorate passed in 1994. Capitol, a school that had been slated for almost certain closure, was given the green light to build a new facility.

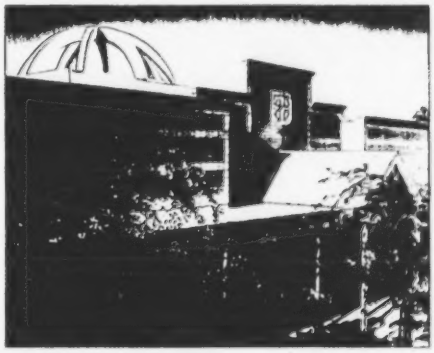
For Garrido, for Maribel, and for the entire Capitol School community, the promise of a new facility was both a reward for their efforts and a catalyst for continued growth and community building. It was a long-overdue break for a community desperately in need of a fresh start.

A New Way of Planning

Responsibility for planning the new school fell to a committee of parents, staff, community members, and businesspeople that Garrido had assembled to direct the process. And despite the wealth of research in support of community-based planning, some of the local "experts" in Garrido's district were none too happy with her all-inclusive approach.

Greg Johnson, director of facilities for the Phoenix Elementary School District (PESD), was one of the early skeptics. Looking around the room at the first meeting of the Capitol School Planning Committee, he was baffled by the mix of people Garrido had assembled. "I thought to myself, 'What do these people know about construction?'" recalls Johnson.

Even more surprising to the engineer: No one was talking about *the building*. Week after week, the conversation was about the programs and practices that would best serve students. The committee discussed project-based learning, multiple intelligences, team teaching, and the role of technology in supporting and enhancing their curriculum. "What's to talk about," Johnson recalls thinking. "Let's just build a square box that's easily maintained."



To his credit, Johnson didn't voice his doubts to the rest of the committee. And, much to his surprise, he gradually came to understand that the "old" way of designing a new school wasn't necessarily the best way. "I came to realize that it wasn't about me and it wasn't about an easily maintained building," he says. "It was about the kids."

Form Followed Function

With their educational goals firmly in place, the committee's next big task was to select an architectural firm that would help translate their dreams into a new school building. "We wanted an architectural firm that would respect our work," says Garrido. "We didn't want someone who would say, 'That can't be done.'"

Phoenix architect Paul Winslow saw the power of Capitol's "can-do" attitude during his first visit to the school. "There wasn't a scrap of land that wasn't being used for some educational purpose," says Winslow. Walkways were covered with colored chalk, as student activities spilled out of the overcrowded classrooms. Small plots of ground had been transformed into gardens. A broom closet had been converted into an office for the speech therapist.

"It was pretty clear they were pushing the envelope," says Winslow. "Our job wasn't to tell them what to do. It was to facilitate their exploration."

Students, parents, and staff were asked to describe their ideal school. They drew pictures and covered the multipurpose room walls with their thoughts on everything from the size and shape of classrooms

Continued on page 12

continued from page 11

"The attitude used to be, 'These aren't my kids. Those are your kids.' Now they're all our kids."

—Mari Aguirre, Capitol teacher

to the colors of the building and the location of the playground. Walking around the school, evidence of those brainstorming sessions is everywhere.

The nontraditional colors — the brick exterior is trimmed with yellow awnings, teal green doors, and purple poles — reflect parents' requests for a school that was, in the words of one, "colorful, but not like a piñata." Pods, encompassing six classrooms arranged in a circular fashion around a large shared activity center, were the design answer to the staff's desire to foster community and have ample space for large projects. Movable walls separate each of the classrooms, a tangible by-product of the goal of cross-classroom collaboration. Every pod also includes a shared office space for teachers, another conscious effort to encourage and facilitate common planning.

The open classrooms and common office and activity areas have helped to foster a sense of community that was lacking in the old school, says reading specialist and former classroom teacher Mari Aguirre. "The attitude used to be, 'These aren't my kids. Those are your kids.' Now they're all our kids."

COURTESY CAPITOL ELEMENTARY SCHOOL

Kiwanis President Bob Kay presents appreciation awards to Capitol teachers.

With technology integration high on the committee's list of priorities, members spent considerable time researching and talking about where to put computers and how they might be used to support their educational goals. They decided against a traditional computer lab, opting instead to put computers in all of the classrooms (including the music and art rooms), as well as in the activity centers and the media center.

It's My School, Too

As much as the new school was designed to support the staff's educational goals, it also serves another, vitally important purpose: It fosters a sense of community among the diverse group of people who live, work, learn, and play in and around Capitol School.

One of the facility's most striking features is a large circular courtyard which has become the central gathering space for moms, grandmas, and students' younger siblings who sit in the shade and talk long after the morning school bell rings. Another frequent gathering space is the multipurpose room, which serves as both a cafeteria and a space for assemblies and performances. On particularly hot evenings, or when the multipurpose room is full to overflowing, three large firehouse-type roll doors are pulled open and chairs are set up in the adjacent *ramada*, a large covered patio area that is also used for physical education classes and as an outdoor (but protected) play area.

At Capitol, the emphasis on community-building extends well beyond the students, parents, and staff. Mary and Joe Salazar, who no longer have children or grandchildren attending the school, are part of the Capitol community. So is Bob Kay, owner of a nearby truck repair business and president of the Capitol Gateway Kiwanis of Phoenix, which supports the school by sponsoring a wide variety of programs and through the donation of needed materials. And so are the roughly 250 employees of the downtown Phoenix law firm of Quarles & Brady Streich Lang, whose partnership — which includes everything from serving as room parents to judging the annual essay contest to coaching the soccer team — with Capitol School is now in its 10th year.

The Salazars have lived across the street from Capitol School for 39 years and have seen first-hand what the beautiful new facility has meant to their neighborhood. "There's been a lot of changes around here since the new school was built," says Mary Salazar. "A lot of people have remodeled or painted their houses, which, you know, is good for us, good for the neighborhood."

Like the Salazars, Kay has seen plenty of changes since the building of the new Capitol school. "We don't have near the number of break-ins or the crime in the area that we had 10 years ago. People are proud of the school, proud of the community," says Kay, who was one of the businesspeople Garrido asked to join the new school planning committee.

"It takes all kinds to make it work," says Kay, who for more than a year turned his small business over to his son so he could attend planning meetings. Although he was no stranger to the students and staff at Capitol before he joined the committee, the process added a new dimension to the relationship.

"After being asked to help design the school, it just becomes part of you," says Kay, adding with a wave of his hand, "This is my school, too." □

GETTING to know YOU

How one large high school divided itself into 'neighborhoods.'

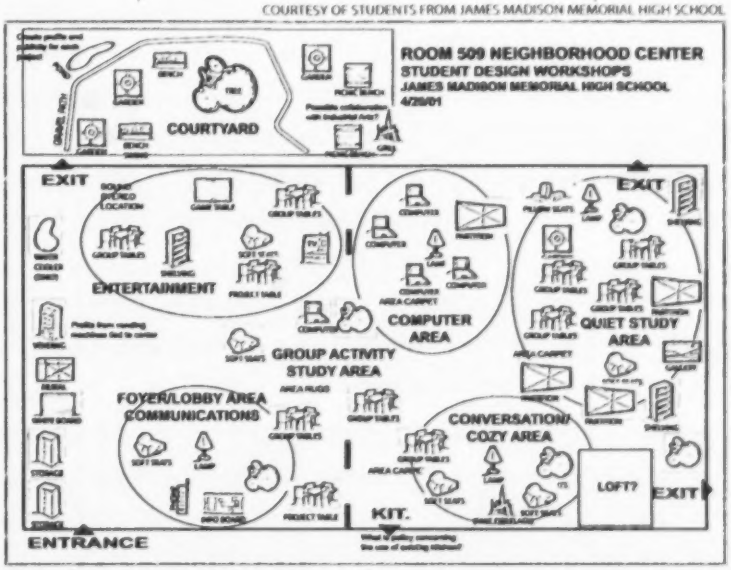
by Diane Curtis
GLEF Staff Writer

▷ ▷ ▷ The idea of breaking down James Madison Memorial High School into smaller units began to jell when a teacher at the 2,100-student, Madison, Wisconsin, school told her colleagues about moving to a new neighborhood.

Welcome Wagon goodies and kindly advice put the teacher in a positive frame of mind about her home-buying decision. A block party where she got to know her neighbors helped connect her to the area and made her feel part of a social group. With such pleasant experiences, the teacher felt she had a stake in her neighborhood and was quickly committed to becoming an active member of the community.

So when Memorial High School received a three-year post-Columbine grant from the United States Department of Education to help combat student alienation, the teacher's neighborhood metaphor struck a chord.

COURTESY OF STUDENTS FROM JAMES MADISON MEMORIAL HIGH SCHOOL



Students contributed their designs for the ideal "neighborhood centers" at the remodeled James Madison Memorial High School.

Copying the Community Model

Memorial was divided into "neighborhoods," "blocks," and "backyards." Backyards have about 20 students, blocks about 100, and neighborhoods about 500 students chosen at random from all 9th through 12th grades.

"I thought it was a really good experience because a lot of freshmen, sophomores, juniors, and seniors got to meet each other and get to know each other through the backyard," says graduate Anastasia Vener. Younger students, she says, asked her about classes and college, and she was glad to share her experiences and knowledge. "It helps (the lower classmen) feel more a part of the school," she said. "It builds a better community."

Each neighborhood has a group meeting space the size of two classrooms that is furnished with tables, chairs, lamps, Internet-accessible computers, laser printers, and couches. Each neighborhood will also eventually have its own outdoor space. The school was remodeled to create the neighborhood centers, which provide after-school tutoring as well as a place for studying and socializing. Homeroom time was also expanded.

"Space itself has rules," says Jeff Lackney, an architect and assistant professor at the University of Wisconsin-Madison, who has been working with Memorial on its new learning environment. "You can tell when you walk into a church, you have to sit down and be quiet. When you walk into a school, what does it tell you? Does it tell you to be creative and express yourself, or 'Open your book, be quiet and go to Chapter Two. You're not supposed to have fun here?'"

A good environment, he says, will "make you feel like you're supported. People are listening to you and people are caring about you. It makes it easier for you to relax and achieve."

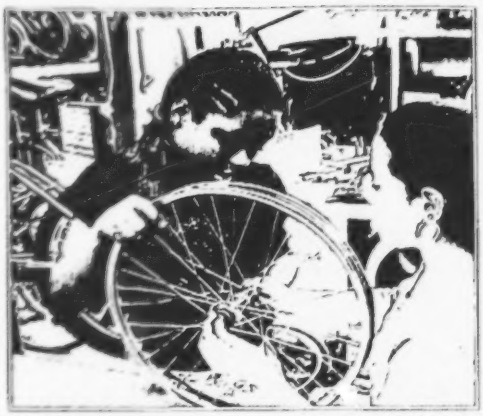
The 100-student blocks eventually will be committed to community service, but most of the initial activity these days takes place in the 20-student "backyards," which are similar to homerooms and focus on socializing and getting to know fellow students and teachers as well as on academics. Each 500-student neighborhood has its own student government (with representatives from every backyard), which gives more students the opportunity to become leaders. Students and teachers stay with the same backyard, block, and neighborhood for all four years.

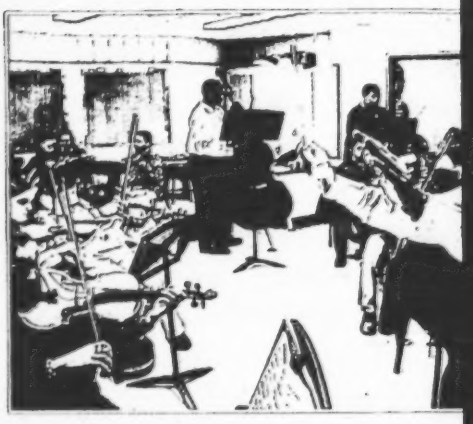
Backyard Activities

During the 2001-2002 inaugural year of the neighborhood concept, backyard activities were as varied as the teachers and students in them. Some started out with name games. Others got to know each other by playing laser tag. Some designed T-shirts to identify their backyards or planned bathroom cleanup chores or mural paintings to brighten up the school. Others collected food for the needy, had cookouts, sports tournaments, or chats about the most unusual thing they had ever done, or invited in speakers.

There are some early indicators of success: Attendance is up, and suspensions, retentions, and discipline problems are down. Students, says Principal Pam Nash, are adopting the vocabulary of neighborhoods, blocks, and backyards, which indicates to her that the idea is catching on.

"It does seem like an improvement in the school," says junior Ashley Kollberg. "Not only do you get to know each other better, you see people in the halls, and it's kind of nice to say hello to people you didn't know before." □





The Power of Partnerships

Healthier kids, a safer school, and improved academic achievement are just a few of the positive effects of this unique partnership between New York City schools and the Children's Aid Society.

For students at IS 218, school is much more than a place to study history or hone their mathematical skills. It's where they go for immunizations or to get their teeth cleaned. It's where they build their own bicycles, gain access to state-of-the-art computers, and learn to play the cello or dance a Broadway jazz number. And it's a safe place where there is always a trusted adult available, whether it's to help with homework or to lend a sympathetic ear.

IS 218, "home" to nearly 1,700 middle schoolers in the Washington Heights neighborhood of New York City, is what's known as a full-service community school. It's organized and managed through a partnership between the New York City Board of Education and the Children's Aid Society (CAS) of New York City, one of the oldest child welfare organizations in the city. The school is open six days a week and over 300 days a year, offering academic and enrichment classes, medical, dental and mental health services, and a wide range of adult education classes for parents, grandparents, and older siblings.

The community school at IS 218, along with the other nine New York City schools with which the Children's Aid Society has partnered, is based on a simple but powerful notion: Children can succeed academically only when all of their health, nutrition, emotional, and developmental needs are met.

Keeping Kids in School — and Parents at Work

One of the first areas you see when you walk into IS 218 is the free clinic. It's where Dr. Hugh Gilgough dispenses antibiotics, makes sure students are current on their immunizations, and works as part of a team of educators, social workers, and other medical professionals to make sure students stay healthy -- and stay in school.

On one typical March school day, for example, a student came into the clinic complaining of tightness in his chest from an asthma flare-up. The student had two treatments on the clinic's Albuterol machine and then went back to class once the tightness had subsided. "We kept him in school, kept him learning," says Dr. Gilgough. Without the school-based clinic, the student would have missed an entire day of school and one of his parents would have missed a day of work — and perhaps the wages that went along with it.

Social workers, available 12 hours a day for students and their family members, provide another vital piece of the safety net designed to keep kids in school. They counsel students individually. They organize group sessions around common concerns, such as anger management or self-esteem. And they help children and adults alike — including school staff — deal with both daily stressors and life-changing events.

For the Washington Heights community, the fall of 2001 brought with it two such events. First came the terrorist attack on the World Trade Center, followed by the crash of a passenger airliner headed for the Dominican Republic, the birthplace of many area residents. No one at IS 218 was untouched by these tragic events. Friends and family members were injured or killed. And everyone's sense of security was shaken.

Now, more than ever, the students seek out adults to guide them through the turbulent times.

"Students come down and say, 'Do you have a minute?'" says Scott Bloom, director of mental health for the school-based clinics run by the Children's Aid Society. They talk about bad dreams, about anxiety over an upcoming test, or a frightening news report. They ask, "Am I going to be safe? Are my mom and dad going to be safe?" Bloom said.

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IMAGES COURTESY OF GLEF VIDEO SERIES © 2002

by Roberta Furger
GLEF Staff Writer

"We're always there. We can talk anytime," says Bloom. "That's very positive for kids. It's something they can count on."

From Bach to Bicycles

At many schools, students pack up their books and head home when the bell rings at 3 o'clock. But at IS 218, the afternoon bell doesn't signal the end of the day — just a continuation. In one room, the string ensemble is practicing. The group of talented young musicians meets every day — the only such program in the local school district. Down the hall, students are sorting through bike parts, tightening wheels, and assembling bikes as part of a recycling program. Elsewhere in the three-story facility, students are participating in math and reading literacy programs, using the school's new wireless laptops, or choreographing a dance number.

Isabel is what you might call a "regular" at the Recycle-A-Bicycle program. You'll find her in the classroom-turned-bike shop on Wednesdays, Fridays, and Saturdays, where she dutifully logged enough hours to qualify for the ultimate reward: to build her own bicycle and take it home.

"I like being here," Isabel says as she tightens the wheel on her bike-in-progress. "I like building my own bike and learning how it works."

The innovative recycling program began in 1993 with a grant from the New York City Department of Sanitation, which was eager to get discarded bike parts "out of the waste stream and onto the streets," says program coordinator Audrey Warren.

Besides being good for the environment, the program is also an excellent opportunity to encourage students to think mechanically, to tinker, "to do things they're not likely to do anywhere else," says Warren.

"They ask questions like: Why do we use ball bearings? What is friction? And how do ball bearings reduce friction?" she adds. "My hope is that they then go back and ask those same questions of their science teachers."

Writing 'Yes' in Your Heart

Rather than trying to replicate what goes on during the school day, CAS' role in the after-school program is to support and enhance the work of classroom teachers. Traditionally, that support has come in the form of enrichment and athletic opportunities, but increasingly it also includes providing students with the extra assistance they need to succeed academically.

For some students, that means help with homework before they move on to the "fun" activities. For others, it means participating in literacy and mathematics programs, geared toward helping students develop the skills they need to perform at their grade level.

A leadership team comprised of CAS staff, teachers, and school administrators develops each new offering jointly. Often, in fact, it's the classroom teachers who lead the after-school activities, providing another level of continuity between what happens during the school day and what happens before and after the bell rings. Teachers who choose to work in the after-school program get paid for the extra hours they put in.

By just about every measure, these joint efforts are paying off. A study conducted by Fordham University researchers found that reading and math scores on standardized tests are higher at IS 218 than at comparable middle schools. Both student and teacher attendance is higher than at other local schools, with the student attendance rate surpassing that of every other middle school in the district (and significantly better than the citywide average). Researchers also found that CAS community schools are safer, have more involved parents, and are considered "special" by students, staff, and parents.

"It doesn't mean there aren't challenges," concedes Jane Quinn, assistant executive director for the Children's Aid Society's Community Schools. "There's never enough space. There's never enough money. And the needs are always greater than the resources we can bring to the table, even collectively. But if you have the word 'yes' written in your heart, you can make almost anything happen. We're living proof of that in our schools in New York City." □

CLICK www.glef.org for the VIDEO
Web documentary and related information

a sampler of designs for teaching & learning

Accessibility for All

When Century High School in Rochester, Minnesota, opened in 1998, students and others with physical disabilities found a wheelchair-friendly environment designed to ensure that such physical disabilities wouldn't impede full participation in both academic and extracurricular life at the school. Examples of the innovative design elements include bathrooms with left- or right-hand opening doors to accommodate individuals with use of only one side of their body; versatile lab stations that can be adjusted for students who use wheelchairs; and two elevators in each section of the building (the Americans with Disabilities Act (ADA) requirements call for just one). In the auditorium, the control room was modified (the viewing window was lowered, as were the controls) so that students in wheelchairs would be able to participate fully in theater productions. District special education teachers initially proposed the inclusive design features, noting that ADA requirements alone didn't go far enough in making buildings fully accessible for individuals with physical disabilities. The design has been so well received that the Rochester Independent School District No. 535 now incorporates these features in all renovations, new buildings, and upgrades. A team of teachers now reviews plans for accessibility before the start of any new project.

New Schools in Older Buildings

Paterson, New Jersey, is becoming a "City of Learning." Under the direction of state-appointed Superintendent Edwin Duroy and architect Roy Strickland, an associate professor at the University of Michigan, some commercial buildings, factories, churches, and synagogues are becoming schools. Renovation of existing buildings, many of them once ornate, turn-of-the-century architectural beauties, contributes to a better education for the city's students, historical preservation, and revitalization of downtown. Strickland's vision of a "City of Learning" coincides with Superintendent Duroy's plan to create a number of small career academies to turn around low achievement scores. Because of the small size of the schools, they often form partnerships for sports and after-school activities with the local park system or YMCA, to the benefit of both the school and the agencies. "What we are doing helps reinforce market use of downtown," says Strickland. But he notes that the "City of Learning" is about far more than urban revitalization and hinges on the research of such respected educational experts as Ted Sizer, Seymour Papert, and Howard Gardner. Among other things, they speak about the importance of close relationships between students and teachers and students and their communities, hands-on learning, and the accommodation of different learning styles. Being in the midst of a working city also affords opportunities to do real work in cooperation with city agencies and private companies, from health care to environmental conservation and mitigation.

A Post-Occupancy Assessment

In most school districts, a renovation or new building project is complete once the students and staff have moved into their new facility, but not at Indian Trail Elementary School in Canal Winchester, Ohio. There, a research team conducted a thorough Post Occupancy Evaluation (POE) to see how well the planning and design goals had actually been met in the new K-3 school building. Although POEs haven't been the norm in most education-related projects, school officials are using them more and more to both assess completed projects and to plan for future ones. The POE may be handled by the architect, by an outside organization, or by school staff. Typically, administrators, teachers, parents, community members, and students respond to interviews about the building's use of space, aesthetics, and function. Results help determine if the building fulfills the user's needs, fine-tune its use, and identify how the building contributes to creating effective learning environments. The award-winning Indian Trail POE began during the design process and continued into the school's occupancy. It affirmed the benefits of connecting small workspaces to classrooms, of having two gymnasiums with a multipurpose room in between and movable, soundproof partitions allowing for many kinds of activities and events to take place, and of providing varied spaces for quiet study and active, creative learning. Results from this POE were immediately useful in a second school designed on the same site.

Honoring the Teachers

At Mary Scroggs Elementary School in Chapel Hill, North Carolina, teachers who need a quiet place to talk on the phone, e-mail parents, or prepare assignments on their computers don't have to head across campus to the faculty lounge or wait until they get home in the evening. They just step into the office they share with one of their colleagues, right next door to their classroom. When the 3-year-old, light-filled school was designed, a top priority was to give teachers their own space, complete with computers, phones, desks, and storage. The goal was to start "treating (teachers) as professionals, raising morale, and providing them with the tools and resources so they can be the best they can be," says Principal Paula McCarthy. Mary Scroggs, one of four schools participating in the BellSouth Foundation's Power to Learn initiative, includes a number of innovations designed to promote learning. It is outfitted with the wiring and connections needed for 21st century technology, including networked computers — wireless and desktop — that connect to the Internet in all classrooms, a school television station, and other multimedia. Walls are made of tagboard and become giant bulletin boards. Wide corridors with couches, tables, and chairs allow students to study or receive one-on-one help outside the regular classroom. The halls also can be used to display work, and stairwells are big enough to become study spaces. Project rooms that have kitchens add more space for science experiments, teacher-parent conferences, or individual instruction. Some classrooms even have porches that allow for outdoor projects like bird-watching.

A Sustainable Design

Ask any student at Roy Lee Walker Elementary School about sustainability — particularly when it comes to school design — and be prepared to get an earful of information. Why? Because this award-winning K-5 school in McKinney, Texas, was designed and built from the ground up to be eco-friendly, taking full advantage of both natural resources and state-of-the-art technologies. Evidence of the school's commitment to a sustainable design are everywhere: from cisterns on the roof that collect rainwater (used to water the native landscaping and cultivate the school's garden) to daylight monitors that minimize the need for artificial light to a windmill that generates electricity. This environmentally sensitive design is tightly integrated into the elementary school curriculum. During fall and winter, students monitor the 10-foot-tall rain gauge as part of a science class. A limestone block wall that's been incorporated into the building shows remnants of ancient fossils. And two large sundials contribute to the students' understanding of the lengthening and shortening of the day. The building itself makes economical use of space — hallways aren't just corridors used for moving from class to class. These wide-open areas house computer workstations, feature student artwork, and provide ample space for small groups to meet and work on projects.

A Nontraditional Facility

When Jessica joined other newcomers in a summer kindergarten camp at Sherman Oaks Community Charter School in San Jose, California, she found an environment carefully designed and constructed to help K-6 students learn. Like her young classmates, Jessica benefits from a thoughtful planning and design process that included input from Principal Peggy Bryan, staff, parents, and community members. Funded by a bond issue, then-Superintendent Marcia Plumleigh encouraged Bryan to design a school unlike any she had ever seen. As part of the process, Bryan and architect Thang Do visited a number of schools, looking for ways others had incorporated design features that support good teaching and learning, such as spaces for collaborative work, access to technology, and room to spread out learning materials. Bryan's staff visited with parents of prospective students to find out what they wanted for their children. One key design element can be seen in large classrooms clustered around a central core in "houses." Two grade levels in six classrooms make up a house, which supports looping (a teacher stays with a group of students for two years), team teaching, and collaborative student work. More space was made available for classrooms when the decision was made not to build a cafeteria — a building that can make lunch a noisy and crowded experience. Many of the students who attend Sherman Oaks live in small spaces with many family members. "We didn't want to put them through that at school," recalls Bryan. Although Jessica and other Sherman Oaks students will probably never know about the design process, they are benefiting from the planning, and have shown their appreciation through high attendance, good grades, and a reluctance to go home at the end of the day.

Net Courses for High Schoolers

High schooler Rachel of Forks, Washington, loves Virtual High School classes. Now a one-year veteran, she takes two VHS classes per semester, along with regular face-to-face classes. "I like the combination, and I like the freedom of working on my own any time I want online. I had to learn about how to write comments so that I didn't sound sarcastic, though," she says. VHS (www.govhs.org) began in 1997 with just 28 participating schools and has grown to include students from 183 schools throughout the United States and the world. Any high school in the country is eligible to become part of this innovative netschool, as long as they provide at least one teacher to teach a net class and appoint a faculty member as their school site VHS coordinator. Participating instructors benefit from professional development opportunities designed to help them make the transition from the physical classroom to the virtual one. Students log on to the VHS Web site from school and from home, and are required to "attend" class each day (or three times a week for students on a block schedule). They benefit from the chance to take courses that might not be offered in their regular high school. Courses range from Advanced Placement-level classes like AP Calculus and AP Biology to classes on American Popular Music or Art and the Internet. As with any high school, interaction among students and staff is a critical component of the VHS. There's a student yearbook, a student and faculty lounge, and an online student showcase where students can share their work with peers, parents, and other VHS visitors. However, online classes may not be for everybody, says Rachel. "It all comes down to self-motivation and whether or not a student can work independently." □

RESOURCES

A Sampling of Resources to Assist in the Planning and Design of Learning Environments

SCHOOL PLANNING & DESIGN

Building the 21st Century School is a Web site devoted to helping schools save money and time by coordinating their technology and facilities planning. Web: archive.ncsa.uiuc.edu/IDT/

The Council of Educational Facility Planners International is a professional association whose members are involved in planning, designing, building and equipping schools and colleges. The council's mission includes advocacy, professional development, research, and dissemination of information about the link between the design of educational facilities and student achievement. Phone: 480.391.0840; Fax: 480.391.0940; E-mail: cefpi@cefpi.org; Web: www.cefpi.org/

Design Features for Project-Based Learning, a study prepared by Susan J. Wolff, Ed.D., discusses 32 design features of the physical learning environment that support and enhance collaborative, project-based learning. The full report is available online at www.designshare.com/Research/Wolff/Wolff_DesignShare_3_7_02.pdf

Design Share is an online library and journal of facility planning. The site includes detailed architectural plans for featured schools, essays and research on school design issues, and annual design award winners. Web: www.designshare.com/

The Educational Design Institute at Mississippi State University promotes the creation of safe, accessible, flexible and developmentally appropriate learner-centered environments. E-mail: edi@msstate.edu; Web: www.edi.msstate.edu/

Green Schools is a Web site published by the Alliance to Save Energy that features resources for schools and school districts interested in learning more about incorporating energy efficiency into facility design. Web: www.ase.org/greenschools/

National Clearinghouse for Educational Facilities provides information about K-12 school planning, design, financing, construction, operations, and maintenance. Phone: 888.552.0624; Web: www.edfacilities.org/

National School Boards Association includes a wide variety of resources for school and school districts designing and planning new learning environments, including information on renovating existing schools, designing and planning new schools, and case studies of model schools and processes. Web: www.nsba.org/sbot/toolkit/FacPlan.html

The Rural School and Community Trust is a national nonprofit organization that works with a network of schools and community groups to improve the quality of education and community life. It has created a network of schools and organizations interested in improving school-community facilities, increasing community participation in the facilities design process, and encouraging public use of school resources. Phone: 202.955.7177; Fax: 202.955.7179; Web: www.ruraledu.org/index.cfm

School Building Assessment Methods provides a framework for determining whether schools and classroom spaces enhance or detract from the learning process. Web: www.edfacilities.org/pubs/sanoffassess.pdf

School Zone: Learning Environments for Children is a practical guide to school design by Anne P. Taylor and George Vlastos. Issues discussed include the importance of the physical learning environment and key issues to consider when designing indoor or outdoor learning environments. (1983) Publisher: Horizon Communications. Phone: 505.266.3431

The Thomas Jefferson Center for Educational Design at the University of Virginia promotes the design of learning environments that support teaching and learning through research on school design (including the ramifications of various options), collaboration between practicing educators and scholars working on school design issues, and teacher preparation through the Curry School of Education. Phone: 434.982.2866; Fax: 434.982.4782; E-mail: tjced@virginia.edu; Web: www.tjced.org/

The U.S. Department of Education Web site includes reports, information on financing, and other resources about planning and designing school facilities. Web: www.ed.gov/inits/construction/ctty-centers.html

ACCESSIBILITY ISSUES

The Center for Universal Design is a national research, information, and technical assistance center that evaluates, develops, and promotes universal design in housing, public, and commercial facilities. Phone: 919.515.3082; Fax: 919.515.7330; E-mail: cud@ncsu.edu; Web: www.design.ncsu.edu/cud/

Half the Planet Foundation is a nonprofit organization that supports the application of technology to promote the Americans with Disabilities Act (ADA). Its Web site includes disability-related news, peer support, and lists of services and products for people with disabilities. Web: www.halftheplanet.com

CASE STUDIES

Impact of New Designs for the Comprehensive High School is a January 2000 report by Oregon State University researcher George Copa that includes a detailed analysis of the design of Minnesota's School of Environmental Studies and its impact on learning. Web: www.nccte.org/publications/ncrve/rnds-13xx/rnds-1316.html

Manhattan Village Academy High School was designed with project-based learning and a personalized feeling in mind. Web: www.nycenet.edu/hs_directory/manhattan/Manhattan_Village_Academy.htm and www.architect.org/institute/programs/manhattan/

New Designs for Learning describes the School of Environmental Studies in relation to its design elements. Web: http://newdesigns.orst.edu/updates/environmental_studies/section04.html

COMMUNITY-BASED PLANNING

Historic Neighborhood Schools in the Age of Sprawl: Why Johnny Can't Walk to School is a report by the National Trust for Historic Preservation that details the spread of mega-school sprawl at the expense of small, neighborhood schools. Phone: 202.588.6000; Fax: 202.588.6038; Web: www.nthp.org/news/docs/20001116_johnny_cantwalk.html

Schools as Centers of Community: A Citizen's Guide For Planning and Design provides 10 examples of innovative school designs and outlines a step-by-step process about how parents, citizens, and community groups can get involved in designing new schools. Web: www.ed.gov/inits/construction/commguide.pdf

Smart Growth Online is a Web site published by the Smart Growth Network that includes a variety of resources for communities interested in developing a comprehensive plan for growth and revitalization. Web: www.smartgrowth.org/

COMMUNITY SCHOOLS

Building a Community School is based on the Children's Aid Society's partnership with 10 community schools in New York City. This book identifies key features of a community school, provides an overview of research on the effectiveness of the CAS model, and includes a planning guide for those interested in starting a community school. (2001) Publisher: The Children's Aid Society. Available online at www.childrensaidsociety.org/

Coalition for Community Schools is a network of local, state, and national organizations engaged in creating and sustaining community schools. The coalition's Web site includes funding and planning resources, research on the impact of community schools, case studies on successful community schools, and more. Phone: 202.822.8405; Fax: 202.872.4050; E-mail: ccs@iel.org; Web: www.communityschools.org/

SMALL SCHOOLS

Coalition of Essential Schools is a national network that aims to promote small classrooms and schools that feature personalized instruction, multiple forms of assessment, democratic and equitable school policies and practice, and close partnerships with the school's community. Phone: 510.433.1451; Fax: 510.433.1455; Web: www.essentialschools.org/

ERIC Clearinghouse on Rural Education and Small Schools offers a wealth of resources for educators, parents, community members, businesses, and policymakers interested in learning more about small schools. Phone: 800.624.9120; Fax: 304.347.0467; E-mail: ericrc@ael.org; Web: www.ael.org/eric/small.htm

School Redesign Network at Stanford University offers information for K-12 educators, including courses, redesign resources, and access to research on the benefits of small schools. Phone: 650.724.2932; E-mail: julieh@stanford.edu; Web: www.stanford.edu/dept/SUSE/csrn/

The Power of Their Ideas: Lessons for America From a Small School in Harlem by Deborah Meier uses journal entries and essays to tell the story of one of New York City's most famous public schools. (1995) Publisher: Beacon Press. Phone: 617.742.2110; Fax: 617.723.3097; Web: www.beacon.org

Small Schools, Great Strides is a report published by Bank Street College based on a two-year study of Chicago's small schools strategy. Available online at www.bnkst.edu/html/news/releases/smschool.html

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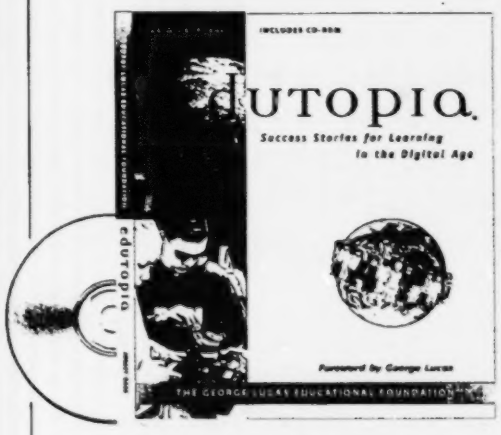
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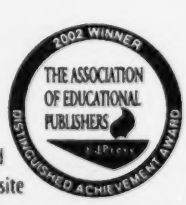

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